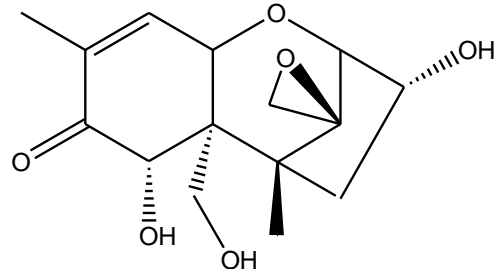


Deoxynivalenol Standard (solid)

Order-No: CH-02-S5

Lot: xxx xxx xxx xxx



Analyte: Deoxynivalenol (DON)

Specification:

- Substance: Deoxynivalenol
- Source: From *Fusarium sp.*
- Empirical Formula: C₁₅H₂₀O₆
- Appearance: White with faint yellow powder
- Solubility: Methanol/ETOAC: clear colorless solution at 10 mg/ml, may be soluble in other solvents
- Melting point: 155°C
- Molecular Weight: 296.32
- Approved:
 - TLC, detection: spray with H₂SO₄ and heat;
 - TLC (NP, CH₂Cl₂, Methanol 95:5) >99%
 - TLC (NP, Toluene, Ethyl acetate 1:3) >99%
 - TLC (RP C18, Methanol, H₂O 9:1) >99%
- HPLC;
 - HPLC (RP C18 (CH₃CN: H₂O 0%→100% in 20min, 220nm) >99.72%
- CAS-No.: 51481-10-8
- Weight: 5,0 mg
- Expiry date: 1 year after delivery
- Storage conditions: -20 °C
- Certification: The calibrant is certified on the basis of gravimetric preparation.
 - Values are based on weight amount and purity.
 - Uncertainty < 0,0072 mg in accordance with ISO Guide 31, ISO Guide 35 and Eurachem/CITAG Guides.

Calculation of uncertainty:

(After the concentration of the gravimetric prepared solution was confirmed by kinetic fluorescent polarization, the uncertainty of the calibrant solution was calculated on the basis of preparation)
 Calculation of the combined uncertainty u_c and the expanded standard uncertainty U :

Uncertainty components	Description	Standard uncertainty (u)	
Purity (P) of solid Deoxynivalenol	$P = 99.72\% \pm 0.6\%$	$u(P) = 0.4\%$	a
Weighing procedure weighted sample: $m_{ws} = 5.0$ mg	repeatability: 0.03 mg linearity: 0.01 mg	$u(m) = 0.03$ mg	b

^a Maximum tolerance of purity (rectangular distribution) was divided by $\sqrt{3}$

^b Estimation of this u-value is based upon the values for repeatability and linearity described in the user manual of the microbalance

Calculation of the combined uncertainty u_c and the expanded standard uncertainty U :

$$\frac{u_c(c_{toxin})}{c_{toxin}} = \sqrt{\left[\frac{u(P)}{P}\right]^2 + \left[\frac{u(m)}{m_{ws}}\right]^2} = \sqrt{\left[\frac{0.4}{99.72}\right]^2 + \left[\frac{0.03}{5.0}\right]^2} = 0.0072$$



Danger

H300
 P264
 P301 + P310

Danger

Contains: Deoxynivalenol

Weight: 5 mg

Fatal if swallowed

Wash ... thoroughly after handling

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. lenses, if present and easy to do. Continue rinsing.

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